

CLAIMS

1. An air bladder for a safety tire having a hollow toric form as a whole and housed in a tire and filled with an internal pressure and extendedly deforming based on the lowering of a tire internal pressure to subrogate the support of a load from the tire, in which an extended deformation portion of the air bladder comprises a crown region opposing to an inner face of a tread portion of the tire and a side region at least opposing to an inner face of a sidewall portion of the tire, and a curve of tensile force to an elongation in a circumferential direction reaching up to an elongation of 50% has a hook shape changing from a sharp linear form in the vicinity of an elongation of 5% to a generally flat curved form in the crown region of the extended deformation portion and an upward sloping shape smoothly increasing with the increase of the elongation in the side region thereof.
2. An air bladder for a safety tire according to claim 1, wherein the extended deformation portion is provided with a reinforcing layer and the reinforcing layer is made of one or more polymer sheets, or one or more layers of a composite body of a polymer sheet or a fiber material with rubber.
3. An air bladder for a safety tire according to claim 1 or 2, wherein the reinforcing layer in the crown region is made of one or more layers of the composite body of the fiber material and rubber, and the fiber material is a non-woven fabric containing aramide fibers arranged in multi-directions.
4. An air bladder for a safety tire according to any one of claims 1 to 3, wherein the reinforcing layer in the side region is made of one or more layers of the composite body of the fiber material and rubber, and the fiber material is a non-woven fabric containing nylon fibers or polyester fibers arranged in multi-directions.
5. An air bladder for a safety tire according to any one of claims 1 to 4, wherein the reinforcing layer is attached to an outside of the rubber tube body having a hollow toric form.